S
354.77
L72RUMH
1995

Legislative Audit Division

State of Montana

Report to the Legislature

September 1995

Performance Audit Report

STATE DOCUMENTS COLLECTION

1 3 2000

MONTANA STATE LIBRARY
1515 E. 6th AVE.
HELENA, MONTANA 59620

Relocating Utilities on Montana's Highway Right-of-Way

Department of Transportation

This report contains recommendations for improvements to department operations. These recommendations address:

- **Examining the way Montana pays for utility relocation work.**
- **Strengthening internal controls over project costs.**
- **Improving compliance with laws, regulations and policies.**

Direct comments/inquiries to:
Legislative Audit Division
Room 135 State Capitol
PO Box 201705
Helena MT 59620-1705

94P-31

MONTANA STATE LIBRARY
3 0864 0016 3228 3

PERFORMANCE AUDITS

Performance audits conducted by the Legislative Audit Division are designed to assess state government operations. From the audit work, a determination is made as to whether agencies and programs are accomplishing their purposes, and whether they can do so with greater efficiency and economy. In performing the audit work, the audit staff uses audit standards set forth by the United States General Accounting Office.

Members of the performance audit staff hold degrees in disciplines appropriate to the audit process. Areas of expertise include business and public administration, statistics, economics, computer science, communications, and engineering.

Performance audits are performed at the request of the Legislative Audit Committee which is a bicameral and bipartisan standing committee of the Montana Legislature. The committee consists of six members of the Senate and six members of the House of Representatives.

MEMBERS OF THE LEGISLATIVE AUDIT COMMITTEE

Senator Greg Jergeson, Vice Chairman	Representative Ernest Bergsagel, Chairman
Senator Sue Bartlett	Representative Beverly Barnhart
Senator Reiny Jabs	Representative A. R. "Toni" Hagener
Senator Tom Keating	Representative Bob Keenan
Senator Ken Miller	Representative Robert Pavlovich
Senator Linda Nelson	Representative Bruce Simon

STATE OF MONTANA

Office of the Legislative Auditor

STATE CAPITOL
PO BOX 201705
HELENA, MONTANA 59620-1705
406/444-3122
FAX 406/444-3036

LEGISLATIVE AUDITOR:
SCOTT A. SEACAT

LEGAL COUNSEL:
JOHN W. NORTHEY

DEPUTY LEGISLATIVE AUDITORS:
MARY BRYSON
Operations and EDP Audit
JAMES GILLETT
Financial-Compliance Audit
JIM PELLEGRINI
Performance Audit

September 1995

The Legislative Audit Committee
of the Montana State Legislature:

We conducted a performance audit of the process the Department of Transportation uses to relocate utilities placed along Montana's highways. This report contains recommendations for strengthening internal controls over project costs and improving department compliance. The report also examines the way Montana pays for utility relocation work. Responses from the Department of Transporation and the Federal Highway Administration are contained at the end of the report.

We wish to express our appreciation to Department of Transportation and Federal Highway Administration staff for their cooperation and assistance.

Respectfully submitted,

Scott A. Seacat
Legislative Auditor

Legislative Audit Division

Performance Audit

Relocating Utilities on Montana's Highway Right-of-Way

Department of Transportation

Members of the audit staff involved in this audit were Lisa Blanford, Pam Boggs, and Jim Nelson.

Digitized by the Internet Archive
in 2010 with funding from
Montana State Library

http://www.archive.org/details/relocatingutilit1995mont

Table of Contents

List of Tables, Figures, and Pictures iii

Appointed and Administrative Officials iv

Report Summary S-1

Chapter I Introduction

Introduction 1

Audit Objectives 1

Audit Scope and Methodology 2

Compliance 3

Chapter II Background

Introduction 5

Department of Transportation 5

Why are Utilities on Public Right-of-Way? 5

What is MDT's Involvement with Utilities? 7
- What Effect Does MDT Have on Utility Placement? 7
- How do Utilities Affect Highway Projects? 7
- When Must MDT and Utilities Interact? 8
- How Does MDT Oversee Utility Relocation? 9

How is Utility Relocation Work Paid For? 10
- Cost Sharing 12

Chapter III State Policy

Introduction 13

States can Pay Whatever They Want 13
- Current Situation in Montana 13
- Montana More Generous than Most 13

Legislature Sets Montana's Reimbursement Policy 14
- Who Pays? 14
- Consumer may be Paying for These Costs Twice 14
- Public ROW is Significant Benefit for Utilities 14
- Relocations take Money Away From Construction 15
- Most Relocation Dollars Spent on Public ROW 15
- Costs will Continue to Increase 15
- Savings by not Paying for Relocations on Highway ROW . 16
- Summary 16

Reimbursement Policy Requires Internal Controls 16

Chapter IV Internal Controls

Introduction 17

Table of Contents

Background 17

Why is an Internal Control Structure Needed? 18

Does MDT's Internal Control Structure Work as Intended? . . 19
Questionable Costs not Identified by Control System 19
Only Minimal Cost Monitoring Exists 21

FHWA Once Again Emphasizes Cost Controls 21

Internal Control Structure Needs Improvement 22
Work Unit Coordination 22
Management Information 25
Field Inspections 27
Many Factors Affect Field Inspections 28
Prioritize Projects to Inspect 29
Maintain Inspection Records 30
Train Staff Responsible for Field Inspections 31
Final Project Cost Audits 31

Chapter V - Compliance with Laws, Regulations, and Policies

Introduction 35

Consultant and Contractor Approval 35

Final Engineering Approval 39

Untimely Final Billing 40

Agency Response

Department of Transportation 45

List of Tables, Figures, and Pictures

Table 1	Utility Relocation Expenditures and Fund Sources Government Share	12
Figure 1	Utility Activities on Highway Right-of-Way	9
Figure 2	MDT Utility Relocation Activities and Responsibilities	24
Picture 1	Utilities on Highway Right-of-Way	6

Appointed and Administrative Officials

Department of Transportation	Marvin Dye, Director
	Gary Gilmore, Administrator, Engineering Division William Salisbury, Administrator, Administration Division
	Bruce Barrett, District Administrator, Billings Jason Giard, District Administrator, Butte Mick Johnson, District Administrator, Glendive Eugene Stettler, District Administrator, Great Falls Jim Weaver, District Administrator, Missoula
Federal Highway Administration, Montana Division	Hank Honeywell, Division Administrator Frank Wiler, Financial Manager Merlin Voegele, Right-of-Way Officer

Report Summary

Introduction

The presence of utility lines and facilities on public right-of-way is common in many states. Utility companies are allowed to use this land in order to provide services. Utility lines and facilities include electrical and telephone poles and cables, natural gas pipelines, water lines, sewer lines and electrical wires. In Montana, there is no cost to the utility for using highway right-of-way. This is a significant benefit to utilities. The relative value to utility companies is $436 million.

A utility's presence within the right-of-way can affect the safety of the travelling public and interfere with highway maintenance. Thus, it is necessary for the department to regulate the utility's presence. This includes control of facilities placed in the right-of-way and oversight of work performed by utilities on facilities located in the right-of-way. The Montana Department of Transportation (MDT) is responsible for overseeing relocation of utility company facilities which interfere with highway construction work or pose a hazard to traffic.

Highway construction projects often cause utilities to relocate or adjust their line and grade to accommodate the new highway. The presence of utilities within highway right-of-way adds to the complexity of planned highway work and increases both the costs and time required to complete projects. MDT in conjunction with the Federal Highway Administration (FHWA), reimburses utilities for costs incurred in relocating facilities due to highway construction. MDT undertakes about 100 utility relocation projects each year. During fiscal year 1993-94, government expenditures associated with utility relocation work on Montana's highways amounted to $6.1 million.

State Policy

Reimbursement is not restricted by federal requirements. States can elect to pay certain amounts. Montana's existing reimbursement policy is more generous than the majority of other states. Although Montana's policy for reimbursing utilities for work on private right-of-way is similar to other states, the policy for reimbursement on highway right-of-way is not. Thirty-three of 36 states in an FHWA survey do not reimburse for such work. Although most states allow utilities to occupy state right-of-way,

most states have the authority to require utilities to move facilities from highway right-of-way at the utility company's expense. Utility companies then capture their expenses in their utility rates.

Besides Montana's reimbursement policy, there are several issues which point to a need for the Legislature to re-evaluate whether utilities should be reimbursed for relocating utilities on public right-of-way. Work conducted by the Montana Public Service Commission and the Consumer Council indicates consumers may be paying for facility relocation work, through both motor fuel taxes and through utility rates. In addition, MDT projections show expenses associated with utility relocations will continue to increase and take a larger share of available construction funds.

Current policy was established by law in 1965. Highway funding and construction priorities have changed in 30 years. The legislature may want to review current policy and weigh the pros and cons of Montana's policy for reimbursing utility companies for the costs of relocating utilities installed upon highway right-of-way.

Internal Controls and Compliance

Because Montana's policy is to reimburse utility companies for relocation work, MDT had to establish an internal control structure to monitor this work. Federal regulations require such a structure to ensure accountability for federal funds. States must adhere to federal requirements in order to receive federal reimbursement for utility relocation work. Non-compliance could jeopardize federal highway funding.

The department has not always complied with federal regulations and MDT policy. Costs of relocating utilities are not closely monitored by the department. A review of utility relocation project files revealed expense items which should have been disallowed and others which should have been examined more closely by the department. Both unallowable and questionable costs were not identified and resolved by the department's internal control structure. Consequently, the department paid for unallowable and excessive expenses. In addition, utility companies do not always meet contract provisions which require adherence to MDT policy and federal requirements.

The department should improve internal controls and place more emphasis on monitoring utility relocation costs. Improvements to the existing internal control structure include:

1. Assigning overall project responsibility to better coordinate activities.

2. Defining responsibilities of work units involved.

3. Refining management information.

4. Increasing field inspections and providing training for staff conducting them.

5. Emphasizing utility relocation audits, conducting timely audits and developing policies for use by in-house audit staff.

The department could improve operations in order to better comply with federal and state laws and regulations and departmental policy. The department could:

1. Take steps to ensure MDT approval of consultants and contractors used on utility relocation projects.

2. Clarify department policy for authorizing completion of final engineering (project design) work on a project and ensure authorization is documented.

3. Change contract language and department practices to encourage more timely final billing for utility relocation projects.

Chapter I - Introduction

Introduction

There are two distinct functions associated with allowing utilities to occupy highway right-of-way. The first of these pertains to installation of utility facilities along or across a highway right-of-way. This is referred to as **utility accommodation**. The second area involves the relocation, replacement or adjustment of utility facilities that fall into the path of a proposed highway improvement project. This is referred to as **utility relocation**. The Montana Department of Transportation (MDT) is responsible for overseeing relocation of utility company facilities which interfere with highway construction work or pose a hazard to traffic. MDT undertakes about 100 utility relocation projects each year.

The Federal Highway Administration (FHWA) and MDT requested a performance audit of the contract administration process used by MDT to monitor utility relocation work. MDT is responsible for overseeing the placement of and any activities surrounding utility facilities located within state highway right-of-way. The department also administers projects where utilities placed on private right-of-way are relocated due to state highway construction.

In addition to this performance audit, FHWA and MDT requested the Office of the Legislative Auditor contract with a certified public accountant to audit the utility relocation costs associated with two specific MDT highway construction projects, report number 93C-01. This was an audit of utility companies, consultants and contractors involved on these projects. The purpose of this request was to obtain an independent appraisal of relocation costs prior to accepting and settling on final billing of project costs.

Audit Objectives

The objectives of our performance audit were to:

1. Provide information to the legislature regarding the state's financial obligation for relocating utilities as a result of MDT activities.

2. Examine MDT's internal controls over the utility relocation process and determine if improvements are needed in the process and/or contracts. This included a review of controls for assuring compliance with FHWA requirements.

3. Collect information from other states, professional organizations and utility companies related to potential improvements for relocating utilities.

Audit Scope and Methodology

During initial audit work, we performed a review of the utility relocation process to gain an understanding of both federal and state requirements related to utility relocation work. We interviewed state and federal government staff and utility industry representatives. We examined records and management information. We reviewed FHWA and MDT operations to ascertain how the relocation process works. In addition, we examined the relationship between highway construction projects and the effects on utilities. This included visits to highway construction project sites. The audit was conducted in accordance with governmental auditing standards for performance audits.

We reviewed MDT procedures and contracts for all types of utilities (excluding railroads) which must be relocated as a result of various activities of MDT. This included utility relocations completed directly by utility companies and relocations completed for utilities by consultants and contractors.

Audit work was done both centrally (Helena) and in the field. Central audit work included a review of the process followed to oversee and monitor relocation of utilities which interfere with proposed highway construction, an examination of existing controls over this relocation work, and identification of the department's monitoring process strengths and weaknesses. We examined methods used by MDT to oversee utility relocation work to ensure federal laws, regulations and policies are adhered to. We also compared the department's operations to those of other states' highway agencies.

We assessed the department's internal control structure used to oversee and monitor utility relocation work. In order to accomplish this, we selected a random sample of 72 agreements covering utility relocation projects completed since 1990. We examined department project files to ascertain how well internal controls were working and to identify needed improvements. This work was supplemented with discussions with department central and

field staff, FHWA staff, and utility spokespersons. In addition, we accompanied department staff to proposed, existing and completed project sites. We also reviewed audit work conducted by a contract auditor related to MDT internal controls and incorporated this work into this performance audit.

We contacted other states, utility companies, and related professional organizations during the audit to obtain information on the process used to relocate utilities which interfere with planned highway construction. We contrasted systems used by other states' highway agencies to oversee and monitor utility relocation work to that used by MDT. We gathered comparative information on legal requirements regarding right to occupy highway right-of-way and how relocation of utilities are funded.

We explored alternatives to current methods used by the department to administer and monitor activities surrounding relocation of utilities due to state highway construction. We identified barriers to effective contract administration and developed alternative approaches.

Compliance

We examined department compliance with applicable state and federal laws and regulations. We found areas where the department is not in compliance. Noncompliance could jeopardize federal fund participation in state highway construction projects. These areas are discussed in detail in Chapters IV and V.

Performance audit work also included a review of contracts between MDT and utility companies to determine if they met federal and state requirements and whether improvements in contract language were needed. We found existing contract language does comply with federal and state requirements.

Chapter II - Background

Introduction

This chapter provides an overview of the utility relocation process including information explaining the role between Montana Department of Transportation (MDT) and utility companies.

Department of Transportation

MDT is responsible for planning, designing, constructing, maintaining and regulating the state's highway systems. This includes management over all physical aspects of the state's highway systems including oversight of any land acquired for or devoted to transportation purposes. Such land includes highway right-of-way. It is a common practice for utility companies to install their lines and facilities on the right-of-way of public highways and streets. This includes telephone poles and cables, natural gas pipelines, water lines, sewer lines and electrical wires.

MDT is currently organized into eleven divisions. The bulk of activities related to accommodating utilities on the state's highway systems rests within seven of these divisions: engineering, administration, and the five field divisions.

Why are Utilities on Public Right-of-Way?

The presence of utility lines and facilities on public right-of-way is common in many states. Utility companies are allowed to use this land in order to facilitate the provision of services. Public right-of-way often offers the most practical design, construction and maintenance alternatives for utility service. Utility companies are allowed to occupy the right-of-way provided facilities and lines do not impair surface use by the travelling public. There is no cost to the utility for using highway right-of-way. The following photograph illustrates the placement of utilities on highway right-of-way.

Picture 1

Utilities on Highway Right-of-Way

Federal regulations allow utility use and occupancy of the right-of-way of federal-aid highway systems. Utilities are normally given some level of right-of-way occupancy privilege by state law, policy or ordinance. Section 69-4-101, MCA, which provides for use of public right-of-way for utility lines and facilities states:

> "A telegraph, telephone, electric light, or electric power line corporation . . . is hereby authorized to install its respective plants and appliances necessary for service . . . along and upon any of the public roads, streets, and highways in the state . . ."

This statute further states, "Utility facilities. . .shall be so constructed as not to incommode or endanger the public in the use of said roads, streets, or highways. . ."

What is MDT's Involvement with Utilities?

The department is charged with maintaining the integrity of the state highway system including the right-of-way. This must be done in a way which ensures public safety, protects traffic capacity and physical integrity of highway facilities, does not interfere with normal highway maintenance and minimizes the need for future relocation of utility facilities. A utility's presence within the right-of-way can affect these attributes, so it is necessary for the department to regulate the utility's presence. This includes control of facilities placed in the right-of-way and oversight of work performed by utilities on facilities located in the right-of-way.

What Effect Does MDT Have on Utility Placement?

Physical location of utilities within highway right-of-way is affected by federal highway safety standards, utility industry standards, Administrative Rules of Montana, and MDT policy. It is the responsibility of MDT to set regulations for accommodating utilities on right-of-way for those highways under the department's jurisdiction. MDT subsequently adopted utility occupancy guidelines recommended by the Federal Highway Administration. The goal of these standards is to have utility lines and facilities located in such a way as to allow servicing of lines with minimal interference to highway traffic. Generally, only limited installation of utility facilities along the interstate system is permitted while much broader use is allowed along other federal-aid highway systems. In addition, the preferred location for utility lines and facilities is at or as near as possible to the right-of-way line (outer boundary). However, it is not always possible to place utilities near the right-of-way line and physical placement may vary.

How do Utilities Affect Highway Projects?

Preparing right-of-way and associated easements is a preliminary stage of constructing a highway project. Objects which are located within the boundaries of proposed construction must be moved. Preparation includes removal of structures and vegetation, and removal and relocation of utilities which will be affected by construction plans. In addition, many different types of utilities can affect a highway construction project including: power, telephone, natural gas, water, sewer, railroads, cable television, and petroleum pipelines. Each of these utilities must conform to different location and design standards.

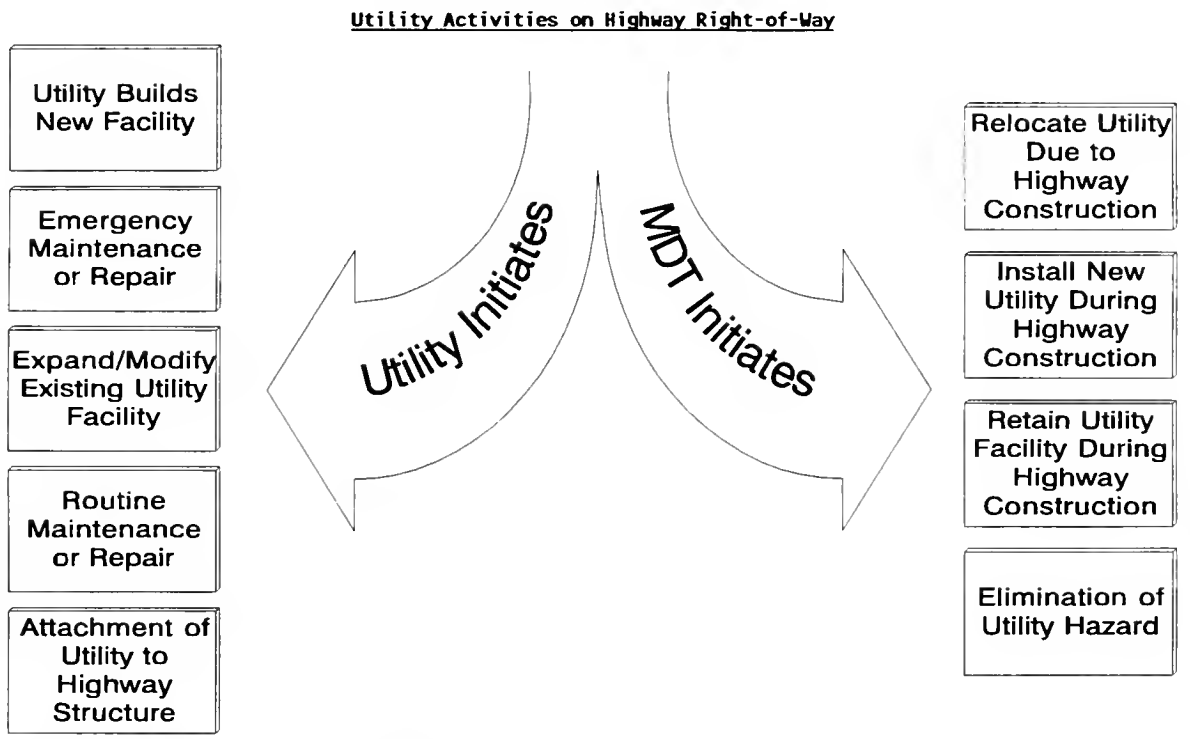
Highway construction projects often necessitate utilities be relocated or their line and grade be adjusted to accommodate the new highway. The extent of relocation of facilities needed due to highway construction varies. It can include removing and reinstalling the facility, including necessary temporary facilities; acquiring right-of-way for the new utility location; moving, rearranging or changing the type of existing facilities; and taking any necessary safety and protective measures. The presence of utilities within highway right-of-way adds to the complexity of planned highway work and can increase both the cost and the amount of time required to complete projects.

When Must MDT and Utilities Interact?

Whenever utility companies work in highway right-of-way or MDT does work which affects utility facilities there is some level of interaction which occurs. If a project is initiated by the utility company, MDT's role is limited to review of the utility's proposed facility and scope of work during the permit application process. Utility companies must obtain an occupancy permit which authorizes work in highway right-of-way. If the project is initiated by the department because of highway construction or safety projects the state's role is expanded. Besides issuing occupancy permits, the department also informs utility companies of proposed highway construction and coordinates this work with relocation work required of the affected utility companies.

MDT's district offices handle daily activities related to utility company installation, servicing and maintenance of their lines and facilities placed within highway right-of-way. Activities pertaining to relocating facilities affected or displaced by highway construction projects are conducted by both central and field office personnel. Interaction between MDT and utility companies is detailed in the following figure.

Figure 1



Source: Complied by the Office of the Legislative Auditor.

How Does MDT Oversee Utility Relocation?

The process of reconstructing the state's highways involves a great deal of planning prior to actual construction work. During the design phase, consideration is given to the effects of road work on existing utilities. Once design work nears completion, construction plans are provided to the department's Right-of-Way Bureau. Preliminary utility and cross section plans are then provided to the Utility Section.

The **Utility Section** is part of the Right-of-Way Bureau. Responsibilities of this section are to alert utility companies of new construction, inform them of conflicts between utility facilities and construction plans, supply them with preliminary highway design plans, conduct field inspections with the utility companies, form agreements covering work to be done, assist with relocation cost estimates and generally act as a liaison between MDT and utility

companies. Utility companies are responsible for planning and designing relocation of their facilities. Utility route design must conform with MDT's accommodation standards.

Once actual relocation of utility facilities and lines is ready to begin, monitoring of utility work becomes the responsibility of the department's **district offices**. District offices are responsible for day-to-day administration of agreements required in moving utilities. District staff issue required permits, authorize work to begin, conduct field inspections, review any changes to agreed upon work, and generally ensure work is done in accordance with agreements reached between MDT and utility companies.

The **Construction Bureau** approves and processes utility relocation bills for payment. Its role is to provide a basis for and assure uniform contract administration of agreements statewide. Duties include review and approval of costs associated with the relocation work and changes to planned scope of work. After bureau review work is completed, bills are forwarded to Accounting Services Bureau for payment processing.

The **Compliance Review Section**, which is part of the Accounting Services Bureau, is involved during two stages of utility relocation work, planning and after project work is completed. Planning responsibilities include review of estimated project costs and the use of engineering consultants on utility projects. Once the project is completed, audit staff review final project costs.

At times, other MDT functions may be involved in utility relocation such as Road Design, Environmental, Traffic, and Hydraulics Sections; Bridge Bureau; and Multimodal Planning and Programming Bureau.

How is Utility Relocation Work Paid For?

Federal Highway Administration (FHWA) contracts with MDT to administer highway construction projects. Since passage of the Federal-aid Highway Act in 1956, utility relocation and adjustment work has been eligible for federal-aid participation as a construction cost item.

The decision to pay for these construction costs lies with the states. Many states use their state and federal highway funds to reimburse utility companies for relocation costs for projects off the right-of-way. Some states also reimburse utilities for relocation projects on the right-of-way. The state of Montana follows this practice. MDT's policy is generally as follows.

-- Section 60-4-403, MCA, provides that utilities located on **public** right-of-way are reimbursed for 75 percent of costs of relocating facilities due to highway construction projects.

-- Title 70, chapter 30, MCA, provides for private land to be taken for public use and that compensation be provided for such taking. Accordingly, utilities located on **private** right-of-way, are reimbursed for 100 percent of relocation costs if they have a property interest. Utility companies have a compensable interest if they own or have a right-of-way easement for use of the land upon which their facilities are located.

Utility companies submit bills to MDT detailing expenses incurred with relocation projects. MDT reimburses utilities for a portion of costs incurred and in turn, seeks reimbursement from FHWA. In most cases, FHWA does not pay for the entire cost of construction or improvement of federal-aid highways. Federal funds are normally "matched" with state funds to provide the necessary dollars to complete a project. Federal-state match percentages for utility relocation projects are the same as for other highway construction work. For example, during fiscal year 1995-96, the federal participation share for the National Highway System is 86.58 percent of eligible costs. Bridge related work is funded at 80 percent federal and 20 percent state. State matching funds come from the Highway Special Revenue Account. A limited amount of construction is 100 percent state funded. The Highway Reconstruction Trust Fund Account funds these construction projects.

Cost Sharing

Federal participation and state statutes require local governments and utility companies to fund a share of the costs of utility relocation work. All three governmental levels may participate in these costs. The following figure shows government expenditures associated with utility relocation work on Montana's highways, including fund sources. Utility companies are also responsible for a portion of costs incurred in moving some utility facilities. Information is not available on the total expenditures for which utilities are responsible. However, a utility's portion of expenses on a project generally ranges from zero to 25 percent.

Table 1

Utility Relocation Expenditures and Fund Sources
Government Share

	Actual FY 1990-91	Actual FY 1991-92	Actual FY 1992-93	Actual FY 1993-94
Expenditures	$3,861,258	$6,263,751	$6,869,110	$6,106,487
Fund Sources				
Federal	$2,892,754	$4,878,347	$5,439,951	$4,501,065
State	952,242	1,370,860	1,296,057	1,456,682
Local	16,262	14,544	133,102	148,740

Source: Compiled by Montana Department of Transportation from SBAS records.

Chapter III - State Policy

Introduction

One of our audit objectives was to provide information to the Legislature regarding the state's financial obligations for relocating utilities as a result of highway construction. During our audit we examined state law, department expenditures and policies adopted by other states' transportation departments.

States can Pay Whatever They Want

State governments can choose to reimburse utilities for relocation work they perform due to highway construction. The Code of Federal Regulations (CFRs) were written in such a way as to allow states freedom in determining if and to what extent they are willing to pay the costs of relocating utility facilities. Federal regulations provide, if state and federal standards differ, the more restrictive of the two prevails. FHWA reimbursement is limited to the more restrictive of the standards. Thus, states can elect to pay less than what FHWA will participate in.

Current Situation in Montana

Utilities located outside existing highway right-of-way on private properties are reimbursed at 100 percent of relocation costs. Utilities located inside of existing highway right-of-way are reimbursed for relocation costs at 75 percent. Montana's reimbursement policies are set by statute. These policies were discussed in greater detail on page 11.

Montana More Generous than Most

During our audit we compared the reimbursement policies of Montana to those used by other states. We found Montana's reimbursement policy is more generous than the majority of the other states. Although the state's policy for reimbursing utilities for work on private right-of-way is similar to other states, the policy for reimbursement on highway right-of-way is not. A survey conducted by FHWA shows other states generally do not reimburse utilities for relocating facilities located on highway right-of-way. Thirty-three of 36 states contacted do not reimburse for such work (some of these states pay in certain isolated instances). Only three states routinely reimburse utilities for work performed in highway right-of-way. Although all states permit utilities to occupy state right-of-way, most states have the authority to require

utilities to move facilities from highway right-of-way at their own expense. Utility companies expenses are then captured in the utility rates.

Legislature Sets Montana's Reimbursement Policy

Because Montana's policy for paying for relocation costs on public right-of-way are set by statute, in section 60-4-403, MCA, any change in policy would require legislation.

Who Pays?

Highway right-of-way is procured for the purpose of facilitating transportation. It is purchased with funds derived from taxes and fees assessed on highway users. Utilities provide services to a different customer. By paying for relocation work in the highway right-of-way, Montana uses fuel tax proceeds and gross vehicle weight fees to pay for utility expenses.

Consumer may be Paying for These Costs Twice

Work conducted by the Public Service Commission (PSC) and the Consumer Counsel (CC) provides an indication consumers may be paying for facility relocation work twice, through motor fuel taxes and through utility rates. Upon our suggestion, the PSC and CC examined the effects of utility relocation work on utility rates. Their work on a recent utility company rate increase request showed expenses for relocation work were included in the rate base but government reimbursement for relocation expenses was not. As a result, the utiity rate base was overstated by $1.5 million and utility rates would also have funded facility relocation work. This is the first time the PSC and CC have examined this specific issue. Consumer Counsel officials indicated that utilities' accounting for reimbursement for relocation work done for MDT will be examined during future rate reviews.

Public ROW is Significant Benefit for Utilities

Utilities are allowed to place their facilities on highway right-of-way. Utilities incur no cost for using this right-of-way. It is a right afforded utilities by statute. It is a convenient means for utilities to provide services. A case can be made that utilities should occupy highway right-of-way at their own "risk." They pay nothing for land use yet Montana has chosen to reimburse them for most expenses incurred when they have to relocate facilities which

conflict with highway work. The use of public right-of-way is a significant benefit to utilities. The estimated value of the highway right-of-way used by utility companies is $436 million. Most states have chosen to allow utilities on public right-of-way but do not reimburse for relocation caused by highway construction.

Relocations take Money Away From Construction

Dollars expended for utility relocation work have more than doubled since FY 1990-91 and take a larger portion of available construction funds. During FY 1993-94, highway construction contractor payments were $146.6 million and payments to utility companies totalled $6.1 million. Utility payments were equal to about 4.2 percent of construction contractor payments.

In comparison to other states, Montana spends a larger share of construction costs on utility relocation work. An FHWA survey of 36 states revealed 74 percent spend a smaller share on utility relocations than Montana does. During fiscal year 1992-93, other states utility relocation payments averaged about 2.8 percent of construction contractor payments.

Most Relocation Dollars Spent on Public ROW

The majority of expenses incurred in relocating utilities are for moving utilities located within the public right-of-way. We estimate 67 percent of funds are spent on relocating utilities on public right-of-way and 33 percent on private right-of-way.

Costs will Continue to Increase

Department projections for the upcoming biennium show expenses associated with utility relocations will continue to increase and take a larger share of available construction funds. The department has budgeted $8.1 million for utility relocation work in fiscal year 1996-97.

Future highway reconstruction will involve a greater amount of utility relocation work. The department estimates 60 percent of Montana's National Highway System routes are less than 40 feet wide (the national standard). Expanding pavement width will result in relocating existing utility facilities which interfere with highway construction. Improving these highways to modern design standards will increase utility relocation costs.

Savings by not Paying for Relocations on Highway ROW

Federal highway construction funds are not earmarked for specific uses, such as right-of-way acquisition, construction engineering, construction contractors or utility relocations. Savings achieved by not paying for relocations of utilities on highway right-of-way could be used for other aspects of highway construction. We estimate at least $4 million per year in state and federal funds would be available for other portions of construction. Such a change would also reduce staff work load. By not paying for relocation work on public right-of-way, the department would no longer need to monitor these costs.

ROW Use Could Provide Revenue

There is a nationwide movement towards charging utilities for use of highway right-of-way. Some states rent or lease the use of public right-of-way to utility companies. This provides an additional source of revenue to highway agencies.

Summary

Current policy was established by law in 1965. Highway funding and construction priorities have changed in 30 years. The legislature may want to review current policy and weigh the pros and cons of Montana's policy for reimbursing utilities for the costs of relocation incurred by utilities installed upon highway right-of-way.

Reimbursement Policy Requires Internal Controls

Because Montana's policy is to reimburse utility companies for relocation work necessitated by highway construction, MDT had to establish an internal control structure to monitor this work. The remainder of this report discusses improvements the department needs to make to strengthen this structure.

Chapter IV - Internal Controls

Introduction

One of our audit objectives was to review MDT's internal controls and procedures over the utility relocation process and determine if improvements are needed. We also evaluated the department's process for monitoring relocation activities.

Federal regulations require the department establish and maintain an effective internal control structure to ensure accountability for federal financial assistance. States must adhere to federal requirements in order to receive federal reimbursement for utility relocation work. If MDT does not meet these requirements, the FHWA can deny federal fund participation. The department could find itself in the position of having to use additional state funds to finance relocation projects.

The objectives of a system of internal controls are to provide management with reasonable assurance that use of resources is consistent with laws, regulations and policies. In addition, a good system of internal controls strengthens program operations by improving governmental activities.

The remainder of this chapter provides information on the department's internal control structure over utility relocation projects and addresses areas where these controls could be improved to ensure compliance with federal requirements.

Background

MDT currently has a structure set up to oversee relocation of utility facilities affected by highway construction. This structure is intended to accomplish two things:

1. Relocate utilities to accommodate highway construction, and
2. Ensure costs of relocation incurred are essential for the work and reasonable given the project's scope, as well as appropriate and allowable.

In order to accomplish these two objectives, the department has created a structure for overseeing relocation work which involves four separate "work units" within the department.

Utility Section - responsible for planning the move and reviewing estimated project costs. Once completed project oversight passes on to the district offices.

District Offices - monitor physical placement of utilities and work in progress. District staff are also responsible for reviewing appropriateness and allowability of costs. Bills for relocation work are routed back to Construction Bureau's central office for processing.

Construction Bureau - approves changes in work scope and estimated project costs and processes bills from utilities.

Compliance Review Section - reviews estimated and final project costs to determine allowability and appropriateness.

Why is an Internal Control Structure Needed?

FHWA stresses the importance of an internal control structure for reviewing utility relocation project costs for a number of reasons. Utility work is handled differently than other highway construction related work. It is paid for on a "cost plus" basis (actual costs plus profit for subcontractors). Utilities are reimbursed for costs incurred in moving their facilities including labor, materials, equipment and a percentage for overhead. The department essentially pays what ever it takes to move the utility. Utility companies must document costs, then MDT and FHWA reimburse utilities based upon this documentation. Reviewing project costs is an important means of ensuring only actual expenses incurred on the project are reimbursed.

In contrast, other aspects of highway construction are accomplished by competitively bid contracts. Department field engineering technicians are on-site documenting actual contract quantities and are responsible for preparing payment estimates. This provides a mechanism which closely monitors costs and compliance with project specifications with these types of contracts.

A working internal control structure is a key means of ensuring costs incurred are essential for the work, reasonable given the project's scope, appropriate and allowable. In addition, Title 2, chapter 15, MCA, implies a statutory obligation for state agencies to administer operations efficiently and effectively.

Does MDT's Internal Control Structure Work as Intended?

Even though MDT has a system set up to monitor relocation project costs, we found department management and staff are unclear about the need for and extent of cost monitoring. Cost containment for utility relocation projects has been approached as an insignificant part of total highway construction in the past. A history of actions by the state and FHWA point to utility relocation cost containment not being as urgent an area to address as other department matters.

We found the department's internal control system does ensure utilities are physically relocated in order to accommodate highway construction projects; however, the system does not always ensure associated relocation costs are appropriate and allowable.

Questionable Costs not Identified by Control System

During our review of utility relocation files for 72 individual projects, we found expense items which should have been disallowed and others which should have been examined more closely by the department. Both unallowable and questionable costs were not identified and resolved by the department's internal control structure.

The following examples from our file review demonstrate the system used by the department to monitor costs is not working as intended.

-- A $1.2 million relocation project in eastern Montana was bid by a utility company and awarded to a contractor prior to MDT review and approval. Prior approval is required by federal regulations and department policy. MDT became aware of this circumstance seven months after the contract was awarded. However, the department took no action against the utility such as enforcing compliance or denying payment.

-- We found a project where MDT paid for utility work for which costs were not adequately supported by documentation. Final billing did not contain a breakout of charges such as labor, materials and equipment. Project cost was approximately $229,000.

-- Our file review revealed MDT was billed and paid for equipment use and labor occurring in 1990 and 1991 on one

project. Work did not begin on this project until 1992. MDT staff did not identify this concern during their review and these costs were paid.

-- We found examples where contractors overran their bid amount and MDT paid for the overrun without supporting documentation.

-- Our review revealed an engineering consultant for a western Montana relocation project applied an overhead rate to its engineering services of 245 percent totaling almost $43,000. There was no documentation which indicated the department reviewed the overhead rate to determine reasonableness. We also found this same project required a contractor to relocate utility facilities for a second time because of a planning error by the construction contractor and MDT. We were unable to determine the cost or extent of work associated with the second move.

-- A utility applied labor rates in effect at the time of billing rather than at the time the work was done. This resulted in an overcharge to the department. Department staff did not find this error.

-- One project had a 50 percent cost overrun and no justification of the extra costs was provided. MDT did not question the overrun nor request supporting documentation.

-- We found 50 percent (10/20) of work orders were submitted after relocation projects were completed. For example, one project had a change in scope of work which increased project costs. Additional costs amounted to $5,540 which was a 66 percent increase. A work order was not submitted until project work had been completed. This change should have been pre-approved by MDT. Another project had a work order which was not submitted until a year and a half after the project was completed.

The contract audit of utility relocation costs also identified questionable and unallowable costs associated with an eastern Montana utility relocation project. This audit identified $467,000 of costs questioned for noncompliance with various federal and state laws and regulations. These included costs that were incorrectly charged to the project and claimed for reimbursement such as direct labor which was not incurred, labor and equipment overcharges, material overcharges, and unauthorized labor costs. The

audit also identified consultant charges incurred without prior MDT approval.

In addition, the contract auditor was unable to audit $374,000 of costs claimed for reimbursement as they were denied access to subcontractor records. Costs which are not supported by adequate documentation are not eligible for federal reimbursement.

The department is currently in the process of trying to recover $841,000 of payments made to the utilities involved on these two projects. Only partial recovery has occurred to date.

Only Minimal Cost Monitoring Exists

Management and staff involved with the four work units which oversee utility relocation work agree only minimal monitoring of costs occurs. The department's primary emphasis is to move utilities from the construction zone. Staff stated it is very difficult to determine if costs involved with relocating utilities are reasonable. Staff said they are paying and certifying bills and do not know for sure what has been done on the project. In fact, some staff have refused to sign billing documents because they have no idea if project costs are appropriate. Staff stated they were not sure what to examine on project invoices for utility relocation work and how to go about determining if costs were incurred and are reasonable. Therefore, they do very little monitoring.

FHWA Once Again Emphasizes Cost Controls

Recent action by the FHWA has shown a greater interest in cost containment. At FHWA's request, MDT agreed to obtain the services of a public accounting firm to review the costs associated with two specific utility relocation projects in Eastern Montana. Based upon the findings of the contract audit, FHWA disallowed 21 percent of the costs claimed for these projects. FHWA also requested MDT conduct a study of the internal control system used by the department to monitor the cost of utility relocation projects. This audit is a result of that request.

These actions indicate a change in emphasis to bring about compliance with federal regulations and contract provisions by the state, utilities and subcontractors. If this emphasis continues in the future, then the department needs to provide a working structure to

meet the requirements of the rules and regulations governing utility relocation projects.

Internal Control Structure Needs Improvement

We found the department is not always complying with federal regulations and MDT policy. In addition, costs of relocating utilities are not closely monitored by the department. Consequently, the department is paying for expenses which are unallowable and shown to be excessive. In addition, we found utility companies do not always meet contract provisions which require adherence to MDT policy and federal requirements.

We found several areas where the department could improve internal controls and place more emphasis on monitoring utility relocation costs. The following issues are discussed in more detail in the remainder of this chapter:

-- Assign overall project responsibility to better coordinate activities.

-- Define responsibilities of work units involved.

-- Refine management information.

-- Increase field inspections and provide training for staff conducting them.

-- Emphasize utility relocation audits, conduct timely audits and develop policies for use by in-house audit staff.

Work Unit Coordination

The department created a structure for overseeing relocation work which involves four separate "work units" within the department. Although the current structure allows staff in the various work units to be aware of job progress, it does not work for monitoring costs. We found this structure is fragmented. No one has an overall understanding of a particular relocation project. Staff are uncertain of their roles and responsibilities in the overall mechanism of monitoring costs of relocating utilities. In addition, work units operate independently. Staff in one work unit are uncertain of what other work units are doing. Staff are unaware of how monitoring work they do impacts the other work units. Consequently, individual work units do very little monitoring of

costs as they assume someone else will examine costs. Although all units are involved with project costs, each unit does minimal cost analysis. This has created a "false reliance" between work units. Some examples illustrate the problems that exist with lack of defined responsibilities and overall coordination.

-- Two work units are involved in pre-approving a utility's use of contractors. The two work units disagree as to the method for approving contractors.

-- Staff in one work unit assume other work units review labor and equipment charges incurred on a project.

-- Observations from field inspections are not shared with other work units.

-- Four work units are involved in approving consultants and contractors. This has resulted in confusion over division of responsibilities.

The following figure shows the activities and responsibilities of the work units involved with utility relocation projects. The degree of each work unit's involvement varies based upon the activity.

Figure 2

MDT Utility Relocation Activities and Responsibilities

MAJOR PHASE	ACTIVITY	Utility Section	Dist. Offices	Const. Bureau	Compl. Section
Route Design and Utility Agreement	Alert Utilities to Construction and Conflict	X			
	Supply Highwey Design Plens to Utilities	X			
	Authorize Preliminary Engineering	X			
	Conduct Location Design Field Inspections	X	X	X	
	Approve Use of Consultant Design	X			X
	Obtain Utility Work Schedule	X			
	Review Utility Route Design	X			
	Review Relocation Cost Estimates	X			X
	Complete Agreement with Utility	X			
Utility Relocation & Work Monitoring	Daily On-Site Administration		X		
	Authorize Finel Engineering		X		
	Issue R.O.W. Permits		X		
	Review and Approve Contractor Use		X	X	
	Authorize Relocation to Begin		X		
	Monitor Compliance with Agreement		X	X	
	Check Work Progress		X	X	
	Monitor Utility Route		X	X	
	Review Changes to Planned Work & Costs	X	X	X	X
	Monitor Materials, Labor, end Equipment		X	X	X
Payment Review and Approval	Review and Approve Bills for Payment		X	X	X
	Authorize Issuing Warrant for Payment			X	
	Desk Audit of Final Project Costs				X
	Field Audit of Final Project Costs				X

Source: Compiled by the Office of the Legislative Auditor

The current structure was designed to segregate duties between those completing agreements with utilities and those paying the bills. This structure was also intended to ensure some consistency in dealing with utility companies. However, department management and staff agree consistency does not exist now. They also acknowledge only minimal monitoring of costs is currently done. While segregation of duties is a good internal control it requires coordination.

The current management structure impedes the effectiveness of controls over monitoring costs of utility relocation projects because there are four work units involved: Utility Section, District Offices, Construction Bureau and Compliance Review Section. This has resulted in both overlaps and gaps in the existing control structure and work efforts of staff. For example, all four work units are involved in consultant and contractor approval, yet none of the units thoroughly review project expenses. The department needs to change the internal control structure. In changing the structure the department needs to ensure the efforts of staff involved with processing utility relocation work are coordinated. To work properly, work unit functions must be well understood by all involved staff. In addition, overall accountability for utility relocation projects needs to be assigned to one group.

Recommendation #1

We recommend the department change the internal control structure to:

A. Define staff responsibilities to eliminate overlaps and gaps between work units.

B. Coordinate activities by assigning overall project responsibility to one work unit.

Management Information

One way the department could strengthen cost monitoring activities is through the development of historical project cost data. Management information which is properly developed and maintained can provide staff with an overview of program operations. Information pertaining to estimated and actual utility relocation project costs could be compiled and used to review new project cost reasonableness by providing a comparable base of data. Such information could also be used in developing budgets for future relocation work.

During our audit we found only limited management information covering relocation project estimated and actual costs. Utility section staff log basic data regarding projects such as project number and location, utility involved, and various progress dates. The Right-of-Way Bureau recently began generating a status report which does include total estimated and final project costs. However, the focus of this report is project timeliness. It contains no detailed cost information such as amounts spent on labor, equipment, materials or overhead. We also found staff responsible for examining final project costs had compiled no management information. Discussions with staff also indicated management information that does exist is not shared with all staff involved in monitoring project costs. Work units develop information for their own use and do not provide this information to other units.

The department needs historical cost information for two purposes: 1) to review project estimates, and 2) to examine final costs. This information could be used to make sure costs were incurred, and were allowable and reasonable, which would in turn assist the department in meeting federal requirements. The FHWA Program Guide states, "Each proposed cost should be reviewed to determine whether it is reasonable, related to the work at hand, necessitated by the highway construction, and is properly attributable to the actual work undertaken." Estimates are important because they are used for lump sum payments. In fact, approximately 25 percent of utility relocation projects are done via lump sum contracts. In addition, progress payments to utilities can be made based upon estimated costs. Historical cost information also provides a "benchmark" to measure final project costs. In addition, federal regulations require states to certify that work is complete, acceptable and done in accordance with the terms of the agreement. Management information could allow for cost analysis of many things such as:

-- Project engineering costs versus total project costs.
-- Hourly equipment usage rates.
-- Consultant fees.
-- Overhead additives.

Compilation of project cost information would provide a means of identifying cost components which are unusual or outside some identified parameter. This could serve as a "flag" and could

trigger further review by department staff. Staff involved in monitoring could use management information to more closely monitor project costs. For example, staff could compare estimated to final project costs. They could also analyze engineering costs between similar relocation projects. This type of data should then be distributed to staff responsible for monitoring. In summary, good management information can provide better coordination of staff efforts and supply an overview of utility relocation projects.

Recommendation #2

We recommend the department:

A. Compile management information to be used in assessing estimated and end of project costs of relocating utilities.

B. Ensure management information is distributed to staff responsible for monitoring project costs to provide better coordination.

Field Inspections

Another means of strengthening cost monitoring is through the use of field inspections. For federal-aid utility relocation projects, field inspections conducted by the highway agency are a requirement. This is because federal regulations require state highway agencies to report to FHWA that work has been done in accordance with the terms of the relocation agreement before the state highway agency can be reimbursed by FHWA. Field inspections can be used to verify labor, materials and equipment costs incurred on a project. The FHWA Program Guide states,

> "It is essential that there be field verification by the highway agency of all reimbursable utility work which has been accomplished. . . . the highway agency needs to have an inspection record which can be used to verify billings for the labor, material, and major items of equipment used by the utility to complete the work."

The department recognized the importance of field inspections for utility relocations and established a policy which requires a state inspector to spend ten hours inspecting the work for every 40 hours worked by the utility. However, this policy also states the purpose of inspections is to keep informed of the work progress and be aware of problems or changes in the work. We found district staff do not meet the department's 10 to 40 hour inspection requirement. Both staff and management acknowledged staff do not inspect relocation projects as often as policy dictates.

Field inspections are conducted by staff (District Utility Agents) located in the department's district offices. During the audit, we found current inspections focus on confirming location of facilities and monitoring job progress. Minimal inspection work is done to verify project costs. Most cost monitoring is done after the project is completed. At this point, District Utility Agents try to verify type and quantity of materials used. Other aspects of project costs, such as labor and equipment charges, are not verified. It is also difficult to verify buried materials, such as cable, once a project is completed.

Many Factors Affect Field Inspections

There are a number of reasons why field inspections have not been a successful cost control. District Utility Agents spend the majority of their time working with accommodating utilities on right-of-way. The purpose of this function is documenting when and where utilities are working in highway right-of-way. Thus, any time a utility plans work on highway right-of-way District Utility Agents become involved. Relocation work requires physical inspection of proposed work sites and thus becomes quite time consuming because of travel. Once department review and approval is granted, utility companies are given an occupancy permit. Travel required in visiting utility relocation projects also reduces time available for cost monitoring work.

While the main purpose of field inspections is to observe job progress, cost monitoring could also be performed. We found district staff have received minimal cost monitoring training. As a result, agents all indicated they are uncertain what to examine when they conduct field inspections related to reviewing project costs. They stated utility billings are very difficult to examine and verify, especially for labor and equipment. Thus, their field inspections

target documenting materials. Staff said they process bills for payment even though they do not know for sure what has been done on the project. District staff expressed a desire for detailed training pertaining to conducting inspections and reviewing utility relocation project costs. Utility companies agree it is difficult for MDT staff to determine if project billings are correct. Utility company staff stated district staff examine bills for math errors but rarely adjust bills for unallowable or unreasonable costs.

Another factor which inhibits inspections is that workload varies greatly between the five districts. Some districts have more relocation work than others. Thus, some District Utility Agents have a heavy work load while others do not. We also found that some District Engineers have placed limits on staff over-time and travel expenses. This affects frequency of inspections on those sites located a greater distance from district headquarters. In addition, District Utility Agents are funded through district budgets yet utility moves are paid from Construction Bureau funds. This factor contributes to the reluctance of District Engineers to have district staff monitor utility relocation work.

The department can not completely overcome many of these obstacles to inspections, however, there are things which could be done to strengthen the effectiveness of field inspections.

Prioritize Projects to Inspect

The department should place more emphasis upon field inspections of utility relocation projects. Focus of these inspections should be expanded beyond verifying facility location and should include verification of project costs. Use of field inspections would strengthen cost monitoring. First and foremost, the department should prioritize which utility relocation projects should have field inspections and determine the amount of effort to be expended on all relocation projects. Not all utility relocation projects need to receive a similar amount of inspection effort. Prioritization should consider size and complexity of projects, FHWA input, project location and cost, and the department's past history with the utilities and contractors involved on various projects. The department needs to adjust its efforts to make better use of available resources while balancing this with project risk.

The department could pursue several options in an effort to strengthen the field inspection function. The department should consider and evaluate these options and decide if they could be used to improve field inspections. Other states we contacted use their construction staff to monitor relocation projects. Some have also hired consultants to supplement the states' project monitoring. Additional options include:

-- Use other department staff, both Helena and district based, to assist with inspections. This could include Construction Project Managers, Utility Section Agents and Helena-based Construction Bureau staff.

-- Allocate Utility Agents to the various districts according to each district's utility relocation workload.

-- Hire an independent inspector for a sample of projects or for larger utility relocations.

Maintain Inspection Records

Although federal guidelines require daily inspection records, we found department staff maintain minimal records of inspections which they conduct. Records consist primarily of notes to utility agents' field diaries. Other states we contacted require and use project inspection records. We also found some states require utilities to maintain and provide daily inspection records. Other states then use information gathered during inspections to examine final project costs.

To further strengthen the effectiveness of field inspections the department should maintain better inspection records. Daily records of inspections activities are necessary to verify work conducted on a relocation project. These records can be used to review and verify project costs. Inspection records should be made available to department audit staff for use as a comparison with utility company and contractor records where needed.

Train Staff Responsible for Field Inspections

Finally, the department should provide training to District Utility Agents and other department staff responsible for conducting field inspections. As discussed on page 28, district staff have received little training on monitoring project costs. Consequently, field inspections have not been a successful tool for reviewing project costs. Training should include what to observe during inspections, how to document observations, and how to use information gathered during inspections to verify project costs.

Recommendation #3

We recommend the department:

A. Prioritize which utility relocation projects are to have field inspections and determine the amount of effort to be expended with various projects.

B. Maintain better inspection records to use in reviewing project costs.

C. Provide training to staff responsible for monitoring utility relocation projects.

Final Project Cost Audits

The department's Accounting Services Bureau includes a Compliance Review Section. This section is responsible for reviewing utility relocation project costs and assuring compliance with state and federal laws and regulations. A key function of this section is a review of utility bills for reasonableness of costs and completeness of supporting documentation. Staff in other areas of the department involved with utility relocation work indicated they rely heavily on the Compliance Review Section to monitor project costs. This process is referred to as final audit. Final audits are conducted after the department pays utilities for relocation work.

One of the primary monitoring functions the section relies upon to review utility bills is office-based audits. These are reviews of utility bills and accompanying documents which have been submitted to MDT. However, our audit revealed this process is

not currently a cost control function. We found office-based audits are not completed in a timely manner. During our review of utility project files, we found 30 percent of projects which were completed had not had an office-based audit conducted. In addition, we found in those cases where the office-based audit had been completed, 35 percent did not occur until at least seven months after final project bills had been submitted to MDT. One of the projects we reviewed did not have an office-based audit completed until four years after the utility submitted its bill to the department.

We also found that although office-based audits are conducted, costs are rarely disallowed due to this review. During our review of a random sample of utility projects, forty of the projects had an office-based audit completed. The department did not disallow costs on any of these projects. Staff indicated project costs are seldom disallowed as a result of office-based audits yet our review of project files indicate costs should be disallowed. Results of our review are discussed on page 19.

In addition to office-based audits, the department also performs field audits. These audits are conducted at selected utility companies. During these audits, costs incurred on relocation projects can be examined in detail. Records reviewed can include employee time sheets, administrative overhead calculations, equipment usage logs, and materials inventory data. We found department staff have not conducted field audits of utility companies since 1991.

Our audit also revealed the department does not have any documented policies and procedures for use by staff when conducting office-based and field audits. Although the department developed an audit program which provides some guidance, this plan has not been updated since 1983. MDT staff indicated more complete policies were needed. In addition, other work unit staff stated audit policies and procedures could be used to provide them with guidance on what to examine on utility bills. The lack of policies have hindered staff's audit efforts.

Detailed reviews of utility bills and supporting documents should be a key monitoring function. Audits are essential to assuring only those costs incurred on a project are paid for and that costs are

reasonable. Many factors point to the need for audits of utility bills. As discussed on page 19, our review of utility relocation project files identified costs which were questionable and should have been examined in detail. We also found costs which are unallowable. The results of the audit conducted by a contract auditor also indicate a need for detailed review of utility relocation project costs. Discussions with other state's transportation departments revealed they disallow costs based upon these audits. Compounding the need for thorough audits of utility bills is the fact that no one else at MDT conducts a detailed review of project costs.

Department management indicated audits of utility relocation projects have not been a priority over the past few years. In fact, less than 1 FTE has been assigned this responsibility. The department has focused its audit efforts in the motor fuels tax area.

Our review of utility company invoices revealed it is difficult for MDT to determine if costs are allowable and appropriate using documents supplied by the utilities. A much more thorough review can be accomplished through field audits. Department auditors can examine the utilities' supporting documentation including employee payroll records, equipment usage logs, company work orders and overhead rate calculations. In addition, auditors can review utilities' internal controls which cover current operations. Review of a utility company's internal controls could also provide additional assurance over future utility projects conducted by the audited utility.

Audits of invoices for utility relocation projects could be a key control feature. The department needs to place more emphasis in this area. Field audits should be incorporated as part of this control structure. While field audits are more time consuming they offer greater assurance over both internal control structures used by utilities and project costs.

In order to place more emphasis on audits, the department should prioritize those utility relocation projects which would be more beneficial to spend time on. Priority projects could receive additional review such as field audits. Lower priority projects would receive an office-based audit. With almost 100 relocation

projects per year, prioritization would provide a more efficient means of allocating the department's audit resources. When prioritizing relocation projects for field audits, the department could consider FHWA input, project size, dollars expended and past history of utilities and contractors involved. In addition, audit work needs to be completed in a timely manner to be most effective. Prioritizing audit work will improve audit timeliness. MDT also needs to establish policies and procedures to assist staff with both office-based and field audits. Emphasizing the audit function would strengthen the department's monitoring of utility relocation project costs.

Recommendation #4

We recommend the department:

A. Prioritize utility relocation projects for audit review.

B. Conduct timely audits.

C. Develop audit policies for use by in-house audit staff in conducting office-based and field audits.

Chapter V - Compliance with Laws, Regulations, and Policies

Introduction

During our audit we examined compliance with federal and state laws and regulations. We also reviewed the department's adherence to internal policies. This chapter discusses areas of noncompliance which were identified.

Consultant and Contractor Approval

Many utilities contract with engineering consultants and construction firms to provide engineering services and to conduct the actual relocation of utility facilities. Federal regulations allow utilities to contract for this work. However, regulations also place requirements upon state highway agencies to review and approve use of consultants and contractors. The following federal regulations apply:

> CFR 23.645.109 requires that engineering consultants selected by the utility must be approved by the state highway agency.
>
> CFR 23.645.115 provides for utilities to contract for construction work. Such contracts are to be competitively bid unless there is an existing continuing contract. If there is an existing contract, costs must be reasonable.
>
> FHWA Program Guide states, "It is expected the State will undertake such actions needed to verify that the utility awards the contract to the lowest qualified responsible bidder based on appropriate solicitation." The state is to grant concurrence in the award.

The department's internal policies reflect the federal requirements. MDT policy requires state approval of consultant engineers. No consultant charges are to be incurred prior to this approval. Such charges are not eligible for reimbursement. Internal policy also requires when the utility uses construction contractors the work is to be competitively bid, and the bid summary and a complete copy of the low bid be submitted to the department for review and approval. When a continuing contract for construction is used, a copy of the contract is to be submitted to MDT for review and approval. MDT policy further states, "If the Construction Bureau does not receive these documents, utility bills will not be processed for payment."

During our review of relocation project files, we identified significant concerns with approval of consultants and contractors. Contractor charges are often incurred prior to or without MDT's authorization. Specifically, we found: 1) poor file documentation makes it difficult to determine if a consultant or contractor is used on a project; 2) consultants and contractors are not approved by MDT; and 3) MDT approves use after expenses have already been incurred. Four work groups are involved in approving consultants and contractors. Thus, approval documentation is maintained in four different sets of files. The following outlines the concerns identified in each set of files. This data was gathered from our review of a random sample of utility relocation project files.

Utility Section files - We could not determine if an engineering consultant was used for 18 percent (9/49) of projects reviewed. On projects where we could determine a consultant was used, 65 percent (13/20) had no documented MDT approval in the file.

District Office and Construction Bureau files - In those instances where contractors were used for conducting construction work, we were unable to determine the type of contract (competitively bid or continuing contract) for 75 percent (27/36) of the contracts. Further, MDT approval was lacking for 67 percent (24/36) of the construction contractors.

Compliance Review files - We were unable to determine if a engineering consultant was used on 12 percent (6/49) of projects reviewed. When a consultant was used, we found no approval for 59 percent (13/22) of the consultants.

Another problem evident during our file review was department files maintained by the various work units did not contain consistent project information. For instance, although Utility and Compliance Review Sections are both involved in approving engineering consultants, the files in one section indicated 20 consultants were used on 49 projects and files in the other section indicated 17 consultants were used on the same 49 projects. These discrepancies occur between all four work units.

The primary cause of noncompliance with federal regulations and department policy governing use of consultants and contractors is staff confusion over responsibilities and what department review

and approval should entail. Staff are uncertain of their own work unit role and what the role of other work units is in approving consultants and contractors. There are many parties involved in granting and documenting this approval. Responsibilities are not well-defined. We also observed staff disagreeing about what was the proper way to approve continuing contracts.

We found staff are unclear as to who should be maintaining documentation of consultant and contractor approval. Staff in one district indicated they have no documentation because Construction Bureau reviews and approves contractors. Yet we found Construction Bureau files are incomplete as staff there indicated districts were to maintain documentation.

Engineering consultant and construction contractor charges incurred prior to the state's authorization for use are ineligible for reimbursement by the department and subsequently the FHWA. By paying for unauthorized expenditures, the department could jeopardize federal funding. The department blames utility companies for not notifying MDT of planned consultant and contractor use. Utility company representatives state they did not realize notification was important. They point to the fact that MDT never denies reimbursement for unauthorized use of consultants and contractors. Thus, utilities currently have little incentive to notify MDT staff of consultant and contractor use.

In many cases, consultant and contractor payments can amount to a significant portion of project costs. One project we examined during our file review had consultant expenses of about $58,000. This was 26 percent of project costs. Use of a consultant on this particular project had not been approved by MDT. Engineering expenses of $15,900 were incurred on another project with no documented MDT approval in the department's files. We found another project where a non-approved contractor was used by a utility to perform relocation work. Costs involved with this contractor were $75,000.

FHWA has questioned MDT's process for reviewing and approving engineering consultants and construction contractors. A memorandum issued to the department raised several issues for MDT to

clarify. These included: 1) what criteria is used in reviewing acceptability of continuing contracts, 2) does MDT check for indication that contracts cover other work besides federal-aid projects, and 3) the need for the department to re-examine its role in approving contracts between utilities and consultants and contractors and assess what is needed to protect and disperse state and federal funds. The purpose of this letter was for MDT to strengthen its controls over a utility's awarding of contracts to engineering consultants and construction contractors used on utility relocation projects.

There is confusion pertaining to identification, review and approval of engineering consultants and construction contractors. The department needs to clarify approval policies and assign staff responsibilities in the area of utility use of consultants and contractors. Utilities should then be notified of the department's revised policy. In order to gain compliance with the consultant and contractor approval policy, MDT should deny payment for consultant and contractor charges incurred without MDT authorization. The department should also establish a consistent means for documenting its review and approval. Implementing these recommendations would help to assure compliance with federal regulations and MDT policy.

Recommendation #5

We recommend the department:

A. Clarify policies and staff responsibilities for department approval of consultants and contractors.

B. Notify utilities of MDT's revised policy governing the use of consultants and contractors.

C. Deny payment for consultant and contractor expenses incurred without MDT authorization.

D. Properly document MDT approval of consultant and contractor use in project files.

Final Engineering Approval

Department policy provides for specific steps in authorizing utilities to complete final engineering (project design) work on a project. Section 4.0 of the department's Utility and Railroad Contract Administration Manual requires the district offices to submit a final engineering authorization letter to utilities. This letter also requests utilities to inform the department of how the work will be completed (utility staff, low-bid contractor or continuing contractor) during the construction phase of the project.

During our review of a random sample of relocation project files, we found final engineering letters are not always provided to the utilities. We found final engineering approval was either not granted or not documented in the files for 15 percent (7/46) of the projects.

This authorization step is important because it is one way district offices can identify who will perform the construction work. This begins the construction contractor approval process and assists the department in complying with federal regulations requiring contractor approval. Bypassing this step could contribute to the problems we identified in approving construction contractors. This

concern was discussed on page 38. These authorization letters also request utilities to inform the department if final engineering significantly alters the agreed upon relocated route or costs.

Staff indicated they did not always issue these letters because they were uncertain of when they were needed and what purpose was served. In addition, they also indicated verbal approval was often granted rather than written. The department needs to clarify this policy and stress the need for final engineering authorization letters and ensure districts follow this requirement.

Recommendation #6

We recommend the department clarify the policy for final engineering authorization and ensure district offices are issuing written authorization.

Untimely Final Billing

Audit work revealed concerns with the amount of time it takes utilities to submit bills to MDT for utility relocation work. During our review of relocation project files we examined the area of utility billing. Our review revealed utilities had not billed MDT for more than 365 days after project completion for 20 percent (13/65) of the projects examined. In some cases it takes years after project work is completed for utilities to submit a final bill to the department.

Title 23, part 645, section 117 CFR has been amended, effective February 1995, to require utilities to submit final and complete billings within 365 calendar days following completion of work. Prior to this change the CFR's required final bills from utilities at the earliest practical date.

Slow final billing by utilities delays the department's fund reverting process. Once a final bill is received and project costs tallied, the project can be closed out and unexpended funds reverted to the pool so the funds can be used for other highway construction

projects. Slow final billing by utility companies also delays MDT from closing out the highway construction project. Thus, unexpended construction funds also can not be reverted and used for other highway projects. This could result in the department not using all available federal matching funds. This is a relevant issue because our file review showed 35 percent of projects have unexpended funds. In addition, keeping projects open for an extended period of time makes it more difficult for MDT staff to review costs since so much time has elapsed since project completion. In some cases, department staff who were there during the relocation project were no longer with the department once final billing was received.

Department staff indicate the cause of slow final bills is due to the accounting systems used by the utilities. Discussions with utilities indicated there can be delays of several weeks compiling final project costs. A few utilities indicated the delay can occasionally extend into a period of several months. Utilities also indicated MDT has never stressed the importance of timely final billing nor has the department denied cost participation because of untimely billing. Current contract language is permissive in nature and asks utilities to submit final bills within 180 days of project completion if practicable.

The department could take several steps towards getting utilities to bill in a more timely manner. The department should change the contract language in MDT/Utility Agreements to reflect the CFR's. This language should include a provision, as allowed by CFR, for an extension of time to submit final billing for good cause as determine by MDT. The department should stress the importance of timely billing to utility companies and notify them of the changes to contract language. The department should also encourage compliance by denying reimbursement to utilities who exceed the 365 calendar day limit without a MDT approved time extension.

Recommendation #7

We recommend the department:

A. Change contract language to require final bills be submitted within 365 days after project completion.

B. Notify utilities of the change to contract language and stress the importance of compliance.

C. Deny payment for noncompliance.

Agency Response

Montana Department
of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Marc Racicot, Governor

July 19, 1995

Scott A. Seacat
Legislative Auditor
Room 135
State Capitol
Helena, mt 59620

Subject: Department of Transportation's Performance Audit Report--Relocating Utilities on Montana's Highway Right-of-Way Dated June 1995

I am transmitting our response to the Performance Audit performed by your office on Relocating Utilities on Montana's Highway Right-of-Way.

Thank you for your staff's effort, cooperation, and professionalism during this audit.

If you have questions concerning our response, please call me at 444-6201.

Marvin Dye
Director of Transportation

laopa95.dgz

An Equal Opportunity Employer

Recommendation #1

We recommend the Department change the internal control structure to:

A. Define staff responsibilities to eliminate overlaps and gaps between work units.

B. Coordinate activities by assigning overall project responsibility to one work unit.

Response:

A. We Concur

The utility functions presently performed by the Construction Bureau will be assigned to the Right-of-Way Bureau - Utility Section.

Present Right-of-Way Bureau - Utility Section and Construction Bureau manuals will be combined to define responsibilities and clarify Department policies. (See Activities Chart)

B. We Concur

The Right-of-Way Bureau-Utility Section will be responsible to coordinate all utility relocation activities from agreement stage through the relocation process, including the following duties:

1. Perform occasional field inspections during the utility relocations of major projects (similar to a construction reviewer), to assure compliance with the intent of the agreement.

2. Inspect District records to assure contractor approvals, approvals of changed conditions and utility work orders prior to work beginning.

3. Train field agents in appropriate inspection procedures, record keeping, etc.

4. Approve all contractor bids, consultant agreements, utility work orders and final bills.

5. Maintain an interactive tracking system available to all work units to track the progress of all phases of the utility relocation process.

MDT UTILITY RELOCATION ACTIVITIES AND RESPONSIBILITIES

MAJOR PHASE	ACTIVITY	Utility Section	Dist. Offices	Compl. Section
Route Design and Utility Agreement	Alert Utilities to Construction and Conflict	X		
	Supply Highway design Plans to Utilities	X		
	Authorize Preliminary Engineering	X		
	Conduct Relocation Field Inspections	X	X	
	Approve Use of Consultant Contracts	X		X
	Obtain Utility Work Schedule	X	X*	
	Review Utility Route Design	X	X*	
	Review Relocation Cost Estimates	X		X
	Complete Agreement with Utility	X		
Utility Relocation & Work Monitoring	Relocation Administration		X	
	Authorize Final Engineering		X	
	Issue Occupancy Permits		X	
	Review and Approve Contractor Use	X	X	
	Authorize Relocation to Begin		X	
	Monitor Compliance with Agreement	*X	X	
	Check Work Progress	*X	X	
	Prepare Utility Work Orders for Overruns, Underruns, or Change Conditions		X	
	Approve Utility Work Orders	X		
	Review Changes to Planned Work and Costs	*X	X	
	Monitor Materials, Labor, and Equipment	*X	X	
Payment Review and Approval	Review and Approve Bills for Payment	X	X	
	Authorize Issuing Warrant for Payment	X		
	Desk Audit for Final Project Costs			X
	Field Audit of Final Project Costs			X
	Actual Cost Data Base	X	X	X

*LIMITED, SUPPORT, OR OVERSIGHT RESPONSIBILITY

Recommendation #2

We recommend the Department:

A. Compile management information to be used in assessing estimated and end of project costs of relocating utilities.

B. Ensure management information is distributed to staff responsible for monitoring project costs to provide better coordination.

Response:

A. We Concur

The Right-of-Way Bureau-Utility Section and Accounting Services Bureau-Compliance Review Section, will work to develop an automated data base of actual utility relocation costs, including labor rates, material costs, equipment costs and contractor costs.

B. We Concur

The Right-of-Way Bureau-Utility Section project/parcel tracking system, or a similar system, will be used to track utility agreement and relocation activities, and will be expanded to include actual and estimated costs of relocation projects to be shared by all work units. Also, the data base will incorporate other available system information as needed.

Recommendation #3

A. Prioritize which utility relocations are to have field inspections and determine the amount of effort to be expended with various (types of) projects

B. Maintain better inspection records to use in reviewing project costs

C. Provide training to staff responsible for monitoring utility relocation projects.

Response:

A.and B. We Concur

The Department will enter into discussions with FHWA to re-evaluate the purpose and extent of inspection documentation. We recommend the present 10 hours inspection for 40 hours relocation work be revised to "an as-needed basis."

To accomplish better record keeping and adequate field inspections, each District will evaluate whether the inspections can be accomplished with project staff, temporary personnel, independent inspectors on sample projects, or with additional field utility staff.

Field inspections should have the purpose of verifying that the following occurs:

a. The installation is free from conflict with the construction project.

b. The relocation is accomplished in compliance with the intent of the utility agreement.

c. Use of contractors has been approved.

d. Use of consultants has been approved.

e. Size and type of material used is in accordance with the utility agreement.

f. Betterment work is in accordance with the utility agreement.

g. Hours and equipment used is representative of the relocation work to be performed.

h. Approval of necessary changes to the scope of work.

g. Approval of estimated cost overruns prior to occurrence.

To achieve the goal of cost containment and verification of utility relocation costs:

a. The Compliance Review Section will audit major utility relocation projects.

b. The actual cost data base will be used to review utility estimates.

c. The Department will require utility companies submit a simplified final utility bill in the same format as the

utility estimate, which identifies material, labor and equipment.

d. The Department will require the utility companies and consultants to maintain and provide daily records as recommended in the Audit Report. To assure that adequate information is entered and maintained, the Department will develop a standardized daily diary. The documents would be available to the Department to verify labor and equipment hours.

C. We Concur

Please see Recommendation #1.

Recommendation #4

We recommend the Department:

A. Prioritize utility relocation projects for audit review.

B. Conduct timely audits.

C. Develop audit policies for use by in-house audit staff in conducting office-based and field audits.

Response:

A. We Concur

The Compliance Review Section implemented an audit plan process in January 1995, that prioritized utility relocation projects for audit review.

B. We Concur

To help the Section conduct timely audits, the following were implemented.

1. Audit Plan process implemented January 1995.
2. Assigned additional FTE.
3. Submitted contract audit plan which was approved in the last session of the Legislature.

The Utility Section will also identify and prioritize potential problem projects/areas for audit.

C. We Concur

The Compliance Review Section's existing policies and procedures will be updated. Also, a peer review will be conducted by the AASHTO (American Association of State Highway

and Transportation Officials) Administrative Subcommittee on Internal and External Audit during 1996.

Recommendation #5

A. Clarify policies and staff responsibilities for Department approval of consultants and contractors.

B. Notify utilities of MDT's revised policy governing the use of consultants and contractors.

C. Deny payment for consultant and contractor expenses incurred without MDT authorization.

D. Properly document MDT approval of consultant and contractor use in project files.

Response:

A. and B. We Concur

The FHWA and the Department will jointly define the policy for approval of utility consultant contracts. The Right-of-Way Bureau-Utility Section will approve consultant contracts and contract bids. Compliance Review will review consultant costs, including overhead rates and accounting systems. Utility companies will be notified of Department policy regarding approval of consultants and contractors.

C. We Concur

Although various Utility Section and District letters are sent to the utility companies advising of the procedure for consultant and contractor approvals, an additional effort will be made to ensure utility companies comply with the approval requirements. With the Utility Section monitoring approvals prior to work and additional emphasis in auditing final costs, there will be closer supervision of utility relocation activities, including contract and consultant approvals.

A checklist will be developed, which will accompany the utility agreement, to assure all parties associated with the relocation process are continually advised of necessary approvals. We will also discuss with the FHWA, the necessity to approve competitively-bid contractors.

D. We Concur

The present policy will be clarified to indicate that the Right-of-Way Bureau Chief's approval of a consultant contract occurs with the signing of the utility agreement. Also, utility agreements will include consultant contracts, where applicable.

Recommendation #6

We recommend the Department clarify the policy for final engineering authorization and ensure District offices are issuing written authorization.

Response:

We Concur

The Construction Bureau Contract Administration Manual, page three, item 4.0, is specific as to the need to authorize final engineering and that information must be provided by the utility company prior to proceeding with the work. The final engineering letter has since been standardized to include the essential items.

The Utility Section staff person assigned the duties of monitoring the utility relocation activities (described in Recommendation #1), will monitor the authorization process. The final engineering authorization date will also be entered into the data tracking system. Further, we will investigate the possibility of authorizing final engineering at the time the approved utility agreement is distributed.

Recommendation #7

We recommend the Department:

A. Change contract language to require final bill be submitted within 365 days after project completion.

B. Notify utilities of the change to contract language, and stress the importance of compliance.

C. Deny payment for non-compliance.

Response:

A. and B. We Concur

A brief review of outstanding utility bills indicates that about ten percent of utility bills are beyond the one-year time limit. The majority of the late bills are attributed to two utility companies.

1. The Compliance Review Section will work with the utility companies while conducting the final audit, to assure compliance.

2. The letter sending the utility company the utility agreement, and the letter authorizing the utility to

proceed, will include a statement advising of the 365-day limitation.

3. The Utility Agreement will be revised to reflect the applicable code.

C. We Concur

Closer monitoring of utility activities, consolidating two Helena work units, and consulting with utility companies will resolve the late-payment issue.

An important player in the utility relocation process is the utility company. After the Audit Report is finalized, and prior to implementing the recommendations, the Department will initiate a panel comprised of representatives of the utility companies and utility cooperatives to determine if they have a better way of performing the utility relocation process and verifying costs. There may be better ideas and concepts in the industry that we have not considered.

REF:Q:UT:16.kmc